

Work Order ID 142219

142219

Page 1

Wednesday, March 02, 2016 12:55:36 PM

Item ID: D3800-3-100 Accept *N9000040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Hook And Loop Strip (1" Hard) 225-
 Start Date: 3/8/2016 Start Qty: 200.00 *200* Cust Item ID:
 Required Date: 3/11/2016 Req'd Qty: 200.00 *200* Customer:
 Reference:

Approvals: Process Plan: MCS Date: MAR 02 2016 Tooling: _____ Date: _____ Run Start *NR1*
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3800	Rev B

100 0.00
 100 PURCHASING 225 MAR 02 2016 DAS 13 9-89
 Purchasing Memo 0.00
 Purchasing Issue P/O: 31574
 Purchase Part Number: 9776K97 (5FT), 9776K113(10FT), 9776K13(15FT),
 9776K23(30FT), 9776K117 (50FT), 9776K33(75FT), 9776K93(combination
 pack)
 Supplier: McMASTER CARR Certificate of conformity is required

110 0.00
 110 Receive & Inspect for Damage & Mat'l Certs 0.07
 Packaging Memo
 Packaging Ensure Material Release Note is attached 225 sp 16-03-4.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 142219

142219

Page 2

Wednesday, March 02, 2016 12:55:36 PM

Item ID: D3800-3-100 Accept *N900040100* Setup Start *NS1*

Revision ID:

Item Name: Hook And Loop Strip (1" Hard) Stop *NS2*

Start Date: 3/8/2016 Start Qty: 200.00 *200* Cust Item ID:

Required Date: 3/11/2016 Req'd Qty: 200.00 *200* Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							DAS 38 9-89
120									
QC	Memo	0.00							
Quality Control									MAR 07 2016
130	Identify as per dwg & Stock Location <u>87419</u>	0.00							
130									
Packaging	Memo	0.03							
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.33							
Quality Control									MAR 07 2016

MCS MAR 07 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Wednesday, March 02, 2016 12:55:41 PM

Page 1

Work Order ID: 142219

142219

Parent Item: D3800-3-100

D3800-3-100

Parent Item Name: Hook And Loop Strip (1" Hard)

Start Date: 3/8/2016

Required Date: 3/11/2016

Start Qty: 200.00

Required Qty: 200.00

Comments: IPP Rev:A 08-10-21 revB as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
9776K93		Purchased				100	f	0.0000	1	200			
9776K93									**				
Flame retardent nylon Hook & Loop													
											225 Sp 16-03-4		

DQA: _____ Date: _____



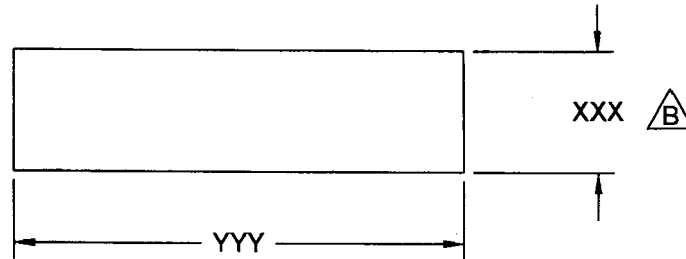
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

SPECIFICATION CONTROL DRAWING



DESCRIPTION: HOOK AND LOOP STRIP WITH ADHESIVE BACK

SPECIFICATION: D3800-1-XXX-YYY LOOP STRIP (ie. SOFT VELCRO STRIP)
D3800-3-XXX-YYY HOOK STRIP (ie. HARD VELCRO STRIP) B

WHERE 'XXX' IS WIDTH IN HUNDREDTHS OF AN INCH
AND 'YYY' IS LENGTH IN TENTHS OF AN INCH

EG. 1" WIDE BY 2.5" LONG LOOP STRIP = D3800-1-100-025
2" WIDE BY 10.0" LONG HOOK STRIP = D3800-3-200-100

PART NUMBER	WIDTH	PURCHASE	
D3800-1-100-YYY LOOP STRIP	1.0	McMASTER CARR P/N: 9776K122, 9776K126, 9776K18, 9776K28, 9776K131, 9776K38	B
D3800-3-100-YYY HOOK STRIP	1.0	McMASTER CARR P/N: 9776K97, 9776K113, 9776K13, 9776K23, 9776K117, 9776K33	B
D3800-1-100-YYY & D3800-3-100-YYY (PURCHASED AS COMBINATION PACK)	1.0	McMASTER CARR P/N: 9776K72, 9776K76, 9776K79, 9776K84, 9776K88, 9776K93	B
D3800-1-200-YYY LOOP STRIP	2.0	McMASTER CARR P/N: 9776K123, 9776K127, 9776K19, 9776K29, 9776K132, 9776K39	
D3800-3-200-YYY HOOK STRIP	2.0	McMASTER CARR P/N: 9776K98, 9776K114, 9776K14, 9776K24, 9776K118, 9776K34	
D3800-1-200-YYY & D3800-3-200-YYY (PURCHASED AS COMBINATION PACK)	2.0	McMASTER CARR P/N: 9776K73, 9776K77, 9776K81, 9776K85, 9776K89, 9776K94	

NOTES:

- 1) MATERIAL: WOVEN NYLON HOOK AND LOOP WITH ADHESIVE BACK
BEIGE COLOR
ACCEPTABLE SUPPLIERS PER ABOVE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

RELEASED

08-10-19-1400

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 14229 MJS
 16-03-08

B	ADD 1" WIDTH OPTION, "XXX-YYY" WAS "XXX", ADD ADDITIONAL McMASTER PART NUMBERS	CP	08.09.09
A	NEW ISSUE	CP	08.06.18
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>GP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>GP</i>		
CHECKED	<i>PH</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>EE</i>	D3800	SHEET 1 OF 1
APPROVED	<i>140</i>	TITLE	SCALE
DE APPR.	<i>14</i>	HOOK AND LOOP STRIP	NTS
DATE	08.09.09	COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process								
Misidentified	☐	Past Due								
			OTHER :							



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO31574**

Purchase Order Date 3/2/2016

PO Print Date 3/2/2016

Page Number 1 of 5

Order From :

MCMaster-CARR SUPPLY CO,
P.O. BOX 7690
CHICAGO, IL 60680-7690
US

VU-MCM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

MAR 02 2016

Contact Name

Vendor Phone 330 995 5500

Ship To Contact

Ship To Phone

Ship Via: Purolator ground ppd

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 10

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	91525A120	washer	3/4/2016 Yes 3/4/2016		50.00 Each	\$0.27	\$13.32
AS PER DWG D3546 REV. A B141989							

Line Total: \$13.32

2	9776K93	Flame retardent nylon Hook & Loop	3/4/2016 Yes 3/4/2016		225.00 Each	\$1.69	\$380.34
---	---------	--------------------------------------	-----------------------------	--	----------------	--------	----------

AS PER DWG D3800 REV. B
B142219

Line Total: \$380.34

Note:

3/2/2016

200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO31574

Order Placed By
Chantal Lavoie

McMaster-Carr Number
7870925-02

Page 1 of 1

03/02/2016

Line	Product	Ordered	Shipped
1	91525A120 Type 316 Stainless Steel Flat Washer, Oversized, 1/4" Screw Size, 0.281" ID, 1.000" OD, Packs of 25	2 Packs	2
2	9776K93 Flame-Retardant Hook and Loop, 1" W X 75' L, Adhesive Back, Beige, Lengths of 75	3 Lengths	3
4	91458A112 Loctite 242 Threadlocker, 0.34 oz	2 Each	2
5	7122A28 1/2" Hex L-Key, Standard, 1/2" Hex, 5-5/16" Long	2 Each	2
6	90261A166 Helical Insert Installation Tool, 1/2"-20 Internal Thread	1 Each	1
7	90261A182 Helical Insert Installation Tool, 5/8"-18 Internal Thread	1 Each	1
8	91732A719 18-8 Stainless Steel Standard Helical Insert, 10-24 Internal Thread, 0.380" Length, MS122160, Packs of 10	10 Packs	1
9	19325A41 Adhesive-Back Ruler, Reads Right to Left, Clear Plastic, 12' LG, 1-1/4" WD	2 Each	2
10	99142A590 Black-Finish Steel Internal Retaining Ring, for 2" Bore Diameter, Packs of 10	1 Pack	1

Shipped separately from our New Jersey warehouse on 03/02

8	91732A719 18-8 Stainless Steel Standard Helical Insert, 10-24 Internal Thread, 0.380" Length, MS122160	10 Packs	9
---	---	-------------	---

Expected to ship

3	9776K131 1" W X 50' L Loop, Adhesive Back, Beige	4 Lengths	4 to ship by 03/09
11	2828A895 Jobbers' Drill Bit for Fiber Composites, Wire Gauge 4, 3" Overall Length, 1.40" Drill Depth	4 Each	4 to ship by 03/16